

## ABSTRACT

Ink refill systems are disclosed. In general, an ink source comprising a  
5 saturated zone and a tuberc porous microstructure for conducting ink from  
the saturated zone to an unsaturated zone are provided. The ink can be  
delivered from the saturated zone to the unsaturated zone through the tuberc  
porous microstructure, thereby permitting the ink to be harnessed for ink  
writing and/or printing through the unsaturated hydrodynamic flow of the ink  
10 from one zone of saturation or unsaturation to another.